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Area-Wide Soil Contamination Task Force – Meeting 7
November 7, 2002, Seattle, WA

Meeting Summary

The Area-Wide Soil Contamination Task Force met for the seventh time on November 7, 2002 in Seattle. The objectives of this meeting were to:

- review areas of emerging Task Force convergence
- discuss progress and next steps for the nature and extent, protective measures, institutional frameworks, and funding and financing Task Force subgroups
- learn how a local government agency, Public Health – Seattle & King County, is addressing area-wide soil contamination

Areas of Emerging Task Force Convergence

Elizabeth McManus of Ross & Associates gave an overview of the ideas that the Task Force seems to be converging around, based on what she has been hearing during the Task Force subgroup calls. These areas of emerging Task Force convergence may be stated as follows.

1. Elevated levels of arsenic and lead are present in soils in many areas of Washington State from a number of historical sources, including metal smelters, lead arsenate pesticides, and emissions from leaded gasoline.
    - The precise boundaries of area-wide soil contamination are not defined; however, certain counties have a higher likelihood of elevated levels of arsenic and lead in soil based on smelter emission patterns or the estimated use of lead arsenate pesticides.
    - Concentrations of arsenic and lead associated with smelter emissions and application of lead arsenate to crops (i.e., in area-wide soil contamination areas) are generally higher than concentrations that are naturally present in soils, but lower than the concentrations found on properties where smelters operated or in areas where lead arsenate pesticides were mixed and formulated.
    - Concentrations are highly variable and depend on the historical use and development of individual properties. Maps and decision charts are a useful way to communicate areas where contamination is most likely while, at the same time, acknowledging this variability.

2. A wide range of potential measures and combinations of measures might be used to address area-wide soil contamination. Measures for responding to area-wide soil contamination can be divided into six categories: education programs, land use and institutional controls, public health programs, best management practices, physical barriers, and reducing contamination. Within each category, a range of protective measures might be considered. Measures should be evaluated based on their effectiveness relative to human health and ecological protection, cost, and practicality; responses in any given situation will generally include a combination (or package) of measures.

3. A variety of approaches are needed to respond to area-wide soil contamination. In many cases, the appropriate response will be a combination of measures that may vary depending on the potential for exposure, the likelihood that contamination is present, and, when observations are done, the observed amount of contamination. Responses should be commensurate with the amount of contamination and the likely type of potential exposure, so that resources are targeted appropriately.
    - The first and foundational response to area-wide soil contamination is a broad-based information, education, and awareness-building campaign. This campaign should be targeted at areas where elevated level of lead and arsenic are likely, and should provide communities and individuals with the information they need to understand the issue and evaluate the potential for elevated levels at specific properties. It should also provide a toolbox of information that communities and individuals could use to implement response actions that they might choose.
    - In addition to the foundational response, child-use areas where the potential for elevated levels of arsenic and lead is high warrant more-specific responses. These more-specific responses include sampling to determine concentrations of arsenic and lead, and implementation of response actions commensurate with the concentrations present.
    - Other circumstances may warrant similar, more specific approaches.
4. A variety of institutions and institutional approaches will be needed to implement responses to area-wide soil contamination
5. To the maximum extent possible, strategies to address area-wide soil contamination should be integrated with and leverage ongoing, everyday activities.

Task Force members discussed these ideas throughout the meeting, including during the Task Force subgroup reports and again near the end of the meeting. Task Force members affirmed these areas of emerging convergence as appropriate for the subgroups to continue to refine and build upon in future meetings.

Several Task Force members suggested a need to explore how the Department of Ecology (Ecology) and the other chartering agencies will use the recommendations the Task Force develops. A few Task Force members noted that it would be important, as part of the state response to area-wide soil contamination, to monitor the success of educational efforts about area-wide soil contamination and individual protection measures to evaluate whether they are increasing public awareness and changing people's behaviors.

Nature and Extent Task Force Subgroup Report and Discussion

Elizabeth McManus of Ross & Associates and Task Force member Dr. Frank Peryea jointly described the recent activities of the nature and extent Task Force subgroup. Ms. McManus noted that the subgroup used the draft preliminary estimates report to develop summary findings on the nature and extent of area-wide contamination in Washington, and that the subgroup had discussed the advantages and disadvantages of using maps to communicate information on the location of area-wide soil contamination. She described a tiered or layered mapping approach and a few specific maps the subgroup had discussed. Dr. Peryea followed

this discussion by describing draft flow charts for helping individuals determine whether elevated levels of arsenic and lead might be present on a property.

Maps Showing the Location of Area-Wide Soil Contamination

Ms. McManus reported that the subgroup decided that maps should be used to communicate information on the location of area-wide soil contamination, but that maps should balance the desire for accuracy with concerns that they might be scary to people. The subgroup proposed using a tiered approach to maps, with the first tier consisting of high-level maps highlighting the areas or counties in the state where elevated levels of arsenic and lead are more likely to be present based on smelter locations and historical numbers of apple and pear trees as an indicator of lead arsenate use, and a second tier consisting of more detailed maps. Task Force members discussed three maps that might make up the first tier:

- A state map showing counties with low, medium, and high potential for having elevated levels of arsenic and lead from historical use of lead arsenate pesticides, with the acreage of land and percentage of private land potentially affected indicated for each county.
- A state map showing the locations of historical smelter sites in the state and the area affected by the Tacoma smelter plume, with counties having a high potential for elevated levels of arsenic and lead from historical smelter emissions highlighted.
- A state map showing the locations of historical smelter sites in the state and the area affected by the Tacoma smelter plume, with no counties highlighted.

Task Force members had a number of comments, questions, and concerns about the state lead arsenate and smelter maps. Suggestions for improving the maps included the following:

- Provide instructions and a disclaimer along with each map describing how to use and interpret the map.
- Add to the legends a description of the meaning of low, medium, and high potential (e.g., for the lead arsenate map, the potential is based on the number of acres potentially affected).
- Consider not coloring the counties on the smelter and lead arsenate maps. If colors are used, do not use any colors based on red.
- Adjust or omit the percentages in the lead arsenate map to make the map clearer and more useful. If percentages are used, flip the order of the percentages and acreages so that the acreages are above the percentages and explain in the legend that the percentages are based on private land.
- Explain why only the Tacoma smelter site has its plume shown on the smelter maps.
- Consider adding acreages to the smelter maps to make the maps consistent.
- Develop more-detailed maps showing the areas that are most likely to be of concern within each county.

Nature and Extent Flow Charts

Dr. Peryea described a series of draft flow charts that individuals could use to help determine whether elevated levels of arsenic and lead are likely to be present on a property and therefore decide whether to test soils and/or take actions at that property to reduce the potential for exposure. The flow charts—one for each of the historical sources of contamination (lead arsenate pesticides, roadside lead, and the four smelter sites)—present a sequence of

questions to help individuals determine whether there is low, medium, high, or unknown probability that elevated levels of lead and arsenic are present on a property. These are meant to complement the much more general statewide maps.

Task Force members had several suggestions for improving the usability and accuracy of the flow charts, including the following.

- Incorporate into the flow charts or develop a separate list of examples of how individuals might find out answers to the questions in the flow charts.
- Consider organizing the flow charts (in particular, the lead arsenate chart) to start with the questions that will lead the most people to one of the end points of the flow chart (e.g., low probability) rather than the most definitive questions.
- Refine the irrigation question in the lead-arsenate flow chart so that it applies throughout the state.
- Consider how to refine the smelter flow charts based on the predominant wind direction.
- Reverse the order of the dates in the roadside-lead flow chart.

A few Task Force members also observed that information about the total areas of land affected or potentially affected by area-wide soil contamination sources in the state (in Table E1 in the executive summary of the preliminary estimates report) should be brought forward and communicated, potentially as part of the maps.

Based on this discussion, the Task Force decided on the following next steps for the nature and extent subgroup.

- Continued Work on the Maps and Flow Charts. The nature and extent subgroup will meet again before the next Task Force meeting to discuss the potential audiences for the maps and flow charts (individuals and/or government agencies) and the refinements and additions that are needed to make the maps and flow charts more useful and understandable to those audiences. In this discussion, the subgroup will consider the use of color, acreages, and percentages in the maps; the descriptions and disclaimers about what the maps mean; the organization and content of the refining questions in the flow charts; and what kinds of more detailed maps should be developed and/or used along with the state maps.
- Information to Accompany the Maps and Flow Charts. The subgroup will discuss ways to provide instructions to individuals or agencies about how the maps and flow charts should be used and information on how individuals may obtain answers to the questions in the flow charts. The subgroup will also discuss how to communicate information on the total areas of land potentially affected by area-wide soil contamination sources in the state.

Communication Report and Forecast

Several Task Force members reported communication activities at this meeting. Task Force co-chairs Steve Kelley and Steve Gerritson noted that a Wenatchee reporter interviewed them at the last Task Force meeting. Randy Philips reported on a recent state health board meeting that included an update on the Task Force's efforts and Wenatchee-area TV coverage on contamination from historical use of lead arsenate pesticides. Jon DeJong said that Ecology, the Office of the Superintendent of Public Instruction, and the Chelan-Douglas Health District have helped the Wenatchee School District to educate parents and others about the elevated levels of arsenic and lead found at Wenatchee-area schools and prepare a plan to remediate

soils at one of the schools by this winter. Linda Hoffman said that the Department of Ecology had briefed individual legislators about the child-use area sampling in the Tacoma smelter plume.

Agency Update on Other Arsenic and Lead Activities

Jim Pendowski of Ecology reviewed Ecology's recent activities related to arsenic and lead soil contamination, including plans and outreach being conducted for the sampling of child-use areas in King and Pierce Counties within the Tacoma smelter plume and work with the Wenatchee School District to conduct an immediate interim action at a Wenatchee elementary school. Dr. Jude Van Buren of the Department of Health said the Department has been conducting outreach to local health providers about area-wide lead and arsenic contamination and will be providing information to State Senator Keiser's office about ironite pesticides. Ann Wick of the Department of Agriculture said that the Department has information about the use of ironite pesticides and concentrations found in Washington soils and offered to make this information available to the Task Force members. The Department will also be providing current crop and agricultural land-use information to the project team.

Public Health – Seattle & King County's Experience with Area-Wide Soil Contamination

Dr. Ngozi Oleru, Chief of Environmental Health for Public Health – Seattle & King County, gave a presentation on what Public Health – Seattle & King County has been doing to reduce exposure to soils contaminated with arsenic and lead in King County. She described the role of public health in addressing this issue; the history of the project; the activities the agency has undertaken to test soils and conduct public outreach and education; the internal and external partners that work with the agency in these efforts; the agency's guidelines for reducing exposure to contaminated soils; and lessons learned about what has and has not worked well. She also distributed example packages of some of the public outreach materials that Public Health – Seattle & King County is using to educate residents about the potential for elevated levels of arsenic and lead in soil and measures that can be taken to minimize potential exposure.

Examples of what has worked well or been important for the agency include:

- A hotline with a live person to answer questions.
- A website providing information about arsenic and lead and guidelines for reducing exposure to contaminated soil.
- Organizing and maintaining databases and files to be able to respond in a timely manner to public information requests.
- Communication with other agency staff, organizational partners, the community, and the media. It is important to keep all the agency partners in the loop, to include community representatives in developing and testing educational materials before mass distribution, and to be responsive to the diversity of interests and needs in the community.
- Incorporating education and outreach efforts into existing agency/organization meetings and community events to ensure good audiences and to save on advertising costs.
- Integration of information and messages on arsenic and lead contaminated soils with broader health messages.

Public Health – Seattle & King County's ongoing challenges include the following:

- Epidemiological data are inconclusive or absent; there isn't a clear connection between the soil concentrations found and blood lead screening results. Sharing this uncertainty with the public can be difficult.
- There are no data about arsenic and lead absorption of plants within the smelter plume, yet the public often asks about health effects of eating food grown in contaminated soil.
- The best practices endorsed by the agency (such as individual protection measures) have not been proved to reduce risk, and the distribution of educational materials and information about best practices has not been proved to change behavior.

The agency will be conducting a program evaluation to collect information about community awareness and behavior change to address the last of these challenges.

Protective Measures Task Force Subgroup Report and Discussion

Task Force member Craig Trueblood reviewed the main changes the protective measures Task Force subgroup had made to the protective measures evaluation tables and outlined an approach to recommendations about protective measures the subgroup had discussed. This approach to recommendations consists of the following elements:

- Protective measures should be commensurate with the level of contamination and types of exposure likely to be present.
- Layers of protective measures should be considered, and different combinations of protective measures might be warranted in different circumstances.
- The foundation for protective measures should be broad-based education, information, and awareness building. This should include education on what area-wide soil contamination is, where elevated levels of arsenic and lead are likely, and tools individuals can use to understand the likelihood of elevated levels at individual properties and implement protective measures.
- Additional protective measures should be used in specific circumstances. For example, in child-use areas where elevated levels of arsenic and lead are likely, soil sampling should be conducted and, depending on the sampling results, additional protective measures should be implemented. Other situations where additional protective measures might be warranted include residential neighborhoods, land proposed for development as a child-use area, land proposed for residential development, and environmentally sensitive areas.
- In circumstances where more than the foundation is needed, a low-medium-high approach to concentrations should inform the selection of protective measures.

In response to this presentation, Task Force members had a variety of questions and comments about the evaluation tables, how the education foundation and approach to child-use areas might be refined, other situations where different protective measures might be warranted, environmentally sensitive areas, the use of concentrations in selecting protective measures, and ways to communicate information on protective measures. Possible refinements to the protective measures approach were as follows.

- Suggestions for increasing the clarity of the protective measures evaluation tables included using dollar signs instead of filled circles for costs or changing the cost rankings so that more filled circles indicates greater cost.

- Task Force members suggested that there might be situations where the foundation of education should be altered to target different audiences and that the approach to child-use areas might be further refined for children of different ages.
- The Task Force added two situations—land proposed for commercial development and vacant land not proposed for development—to the subgroup's list of situations to consider for possible implementation of protective measures other than broad-based education, information, and awareness building. Gardening should be considered separately or as part of the residential development situation.
- Task Force members suggested a couple of different diagrams to convey how protective measures should be selected including a skyscraper ranking different populations of concern based on exposure and a rectangle with a line drawn corner to corner showing how increasing concentrations and different populations relate to the categories of protective measures.

The Task Force expressed interest in receiving feedback on the agencies' general reactions to these recommendations and raised several questions related to whether implementation of these types of actions would be consistent with various provisions of MTCA (e.g. ecological protection.)

The Task Force agreed that the protective measures evaluation tables could be used as working drafts, and thought that the subgroup should focus its efforts on using the tables to develop recommendations rather than on extensive revision to the tables. Task Force members generally agreed with the approach to the protective measures recommendations, but had mixed reactions to the idea of recommending different protective measures based on whether concentrations were low, medium, or high. A number of Task Force members said this would be a useful approach, while others were concerned about making distinctions that would not be meaningful. A few Task Force members commented that the approach to protective measures seemed to be focused on local governments, but that tools need to be developed for individuals as well. Finally, Task Force members asked what institutional processes (e.g., voluntary incentives or mandates) would be needed to ensure the implementation of protective measures, or to ensure that institutional controls be designed to maintain their integrity or effectiveness over time.

Based on this discussion, the Task Force decided on the following next steps for the protective measures subgroup.

- Refinement of Recommendations on Education, Child-Use Area Approaches, and Low-Medium-High Concentration Approach. The subgroup will meet again before the next Task Force meeting to continue to refine the potential recommendations for the protective measures foundation and approaches for child-use areas. The subgroup will also reconsider the low-medium-high approach to selecting protective measures based on concentrations and exposed populations in light of Task Force members' comments on how meaningful and usable such an approach would be.
- Other Situations Where Additional Protective Measures Might be Needed. The subgroup will consider what approaches other than broad-based education might be warranted for situations other than child-use areas, including land proposed for commercial development, vacant land not proposed for development, and other situations the subgroup has identified.

- Tools for Individuals. The subgroup will discuss what tools should be developed to help individuals choose what types of protective measures to implement. The tools could including the diagrams that Task Force members proposed during the November Task Force meeting,
- Institutional Roles and Processes. The protective measures subgroup will start to discuss whether individuals, public agencies, or other institutions would likely implement the different types of protective measures and what institutional processes might be needed to ensure that the protective measures are implemented. The institutional frameworks subgroup would then be able to continue this discussion in greater depth.

Institutional Frameworks Task Force Subgroup Report and Discussion

Task Force member Mike Wearne described some of what the institutional frameworks Task Force subgroup had discussed since the September Task Force meeting. He noted that the subgroup had discussed institutional roles for testing soils at child-use areas, maintaining information about area-wide soil contamination, and distributing educational materials. Elizabeth McManus of Ross & Associates and Jim Pendowski of Ecology added that the subgroup had discussed that a variety of institutions—both public and private—would likely be involved in responding to area-wide soil contamination and that existing systems such as day-care licensing and land-use development processes should be leveraged as much as possible.

Task Force members commented that the insurance industry might play a role in the assumption of risk, that agricultural cost-sharing programs should be researched as a possible approach, and that real estate disclosure approaches could also be used to address area-wide soil contamination. Regarding the last suggestion, Task Force member Steve Kelley mentioned that the local real estate association for north-central Washington has developed a voluntary environmental disclaimer form to address concerns about old orchard soils and mold. The facilitation team noted that it is important to bring expertise from the Task Force into the subgroup conference calls to bring greater depth and rigor to its discussions, so suggested that the membership of this subgroup might be more fluid than for some of the other subgroups. The real estate environmental disclaimer form will be distributed to the Task Force.

Based on this discussion, the Task Force decided on the following next steps for the institutional frameworks subgroup.

- Further Discussion of Approaches to Education and Actions at Child-Use Areas. The subgroup will meet to discuss in greater depth and rigor what it would take to ensure that broad-based education, information, and awareness building occurs statewide and that soil sampling and appropriate protective measures are implemented at child-use areas.
- Institutional Frameworks Discussion Topics. The subgroup will also identify the main topics the subgroup should address in its discussions, so the project team can ensure that the appropriate Task Force members are able to bring their expertise to the discussions.

Funding and Financing Task Force Subgroup Report and Discussion

Task Force member Ken Stanton described what the funding and financing Task Force subgroup had discussed in its first conference call. (Attendance for the call consisted of Commissioner Stanton and agency and facilitation-team representatives only.) He observed

that local governments lack resources and state budgets are tight, so it will be important for the Task Force to identify where to focus the limited resources. Commissioner Stanton also noted that the Departments of Health and Ecology should probably take the lead on funding a broad-based education effort. The subgroup will be looking at the range of existing funding sources that are or might be used to address area-wide soil contamination in Washington.

A few Task Force members commented that the subgroup should keep the takings issue in mind and that Ecology should be cautious in distributing public resources to private companies in mixed funding agreements for cleanup. Other Task Force members suggested that it would be helpful to develop a database of costs spent to implement protective measures at specific sites (e.g., at schools) and that perhaps several states could lobby the federal government for funds to address lead arsenate pesticide contamination.

- Next Funding Conference Call: The subgroup will meet again before the next Task Force meeting to discuss existing funding sources that are or might be used to address area-wide soil contamination in Washington and strategies for funding the activities the Task Force has been discussing.

Agency Response to the Health Monitoring Letter

Dr. Jude Van Buren of the Department of Health reviewed a draft letter from the chartering agencies to respond to the Task Force co-chairs' letter requesting increased health monitoring for lead and arsenic. The draft letter describes the role of the public health and the Department, how lead and arsenic exposure is currently addressed in the state, and how the agencies would like to work with the Task Force to develop further strategies to prevent or minimize exposure of sensitive populations to lead and arsenic. Task Force members with comments or concerns about the draft response to the health letter should share them with the facilitation team by November 15. The facilitation team will forward these comments to the chartering agencies for their consideration in preparing the final draft of the response letter.

Public Comments

There were three opportunities for public comment during the meeting; members of the audience made the following comments during those times.

May Gerstle of the Vashon-Maury Island Heavy Metals Remediation Committee said, in response to the nature and extent subgroup discussion, that it is extremely important to use maps and colors, since most people will not read text; she supported the idea of using maps with the flow charts. Ms. Gerstle observed that, although the Task Force should be in the lead, citizens' groups are already ahead of the Task Force in addressing area-wide soil contamination; she commented that it would be unfortunate if the Task Force makes its recommendations when people are no longer engaged in the issue and have lost their trust in government. She announced that a symposium called "Get the Scoop on Our Dirt" would be held on November 18 concerning soil contamination on Vashon-Maury Island and practical remedies to address it. Finally, she commented that Public Health – Seattle & King County is the pinnacle of what government should be in terms of its relationship with the community.

Greg Glass, an independent consultant, said that EPA has done some studies about roadside lead and that about eight years ago the City of Seattle had an issue with lead in compost and found lead contaminated soils at residences near Interstate 5.

Karen Pickett of the Asarco Information Center in Ruston circulated examples of education materials Asarco has used within the Tacoma smelter plume and said that she can provide contact information for realtors, public health representatives, people who issue building permits, and other people who have direct experience working on area-wide contamination issues in the Tacoma smelter plume.

Next Steps

- The facilitation team will be in touch with Task Force members to schedule conference calls for the nature and extent, protective measures, institutional frameworks, and funding and financing Task Force subgroups.
- The nature and extent subgroup will discuss refinements to the maps and flow charts, additional detailed maps that might be used for the second tier of maps, and information to accompany the maps and flow charts to help individuals use and interpret them.
- The protective measures subgroup will discuss how to refine its recommendations for broad-based education, approaches for child-use areas, and the use of a low-medium-high approach to concentrations. Furthermore, the subgroup will start to outline potential recommended approaches for other circumstances, discuss tools that should be provided to individuals to inform choices about protective measures, and identify, in a general sense, roles for specific institutions in ensuring that protective measures are implemented.
- The institutional frameworks subgroup will continue discussing, in greater detail, approaches to education and actions at child-use areas. In addition, the subgroup will identify future discussion topics on institutional frameworks, so that the appropriate Task Force members may be involved in those discussions.
- The funding and financing subgroup will discuss existing funding sources that are or might be used to address area-wide soil contamination in Washington and will continue its discussion of strategies for funding activities the Task Force is discussing.
- Task Force members with comments or concerns about the draft response to the health letter should share them with the facilitation team by November 15. The facilitation team will forward these comments to the chartering agencies for their consideration in preparing the final draft of the response letter.
- The next Task Force meetings will be on **January 16, 2003** in **Ellensburg**. The locations for the Task Force meetings on March 6 and April 24 have not been determined.

<u>Meeting Materials</u>
- Agenda
- Updated list of Task Force subgroup participants
- Project map
- Summary of September 24 Task Force meeting
- Draft executive summary of the preliminary estimates report
- List of maps considered by the nature and extent Task Force subgroup

- New maps developed for the nature and extent Task Force subgroup for the November Task Force meeting
- Maps distributed and discussed at the September Task Force meeting
- Nature and extent flow charts
- Department of Ecology Associated Lead and Arsenic Related Activities handout
- Tacoma Smelter Plume Prioritizing Child-Use Areas for Soil Sampling fact sheet
- Flyer for Vashon-Maury Island Heavy Metals Remediation Committee symposium on November 18
- "The King County Experience – Soils Contaminated with Arsenic and Lead" presentation
- Public Health – Seattle & King County soil safety poster, healthy gardening brochure, soil safety tips, pica fact sheet, and other materials
- Protective measures Task Force subgroup presentation
- Revised protective measures evaluation tables
- List of example funding sources and financing mechanisms
- Draft letter from the chartering agencies in response to the Task Force co-chairs' health monitoring letter

Members in Attendance
Katherine Bridwell, SAFECO
Jon DeJong, Wenatchee School District
Ted Gage, Washington State Office of Community Development
Steve Gerritson, Sierra Club
Jim Hazen, Washington Horticultural Association
Linda Hoffman, Washington State Department of Ecology
Steve Kelley, Windermere Real Estate, Wenatchee
Scott McKinnie, Far West Agribusiness Association
Laura Mrachek, Cascade Analytical
Ray Paolella, City of Yakima
Frank Peryea, Washington State University Tree Fruit Research and Extension Center
Randy Phillips, Chelan-Douglas Health District
Marcia Riggers, Washington State Office of the Superintendent of Public Instruction
Paul Roberts, City of Everett
Ken Stanton, Douglas County Commission
Craig Trueblood, Preston Gates & Ellis
Jude Van Buren, Washington State Department of Health
Mike Wearne, Washington Mutual Bank
Ann Wick, Washington State Department of Agriculture

Members Unable to Attend
Loren Dunn, Riddell Williams for Washington Environmental Council
Steve Marek, Tacoma/Pierce County Health Department

Consultant Support
Kris Hendrickson, Landau Associates
Julie Wilson, Landau Associates
Anne Dettelbach, Ross & Associates Environmental Consulting
Elizabeth McManus, Ross & Associates Environmental Consulting
Bill Ross, Ross & Associates Environmental Consulting
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- Norm Peck
- Jim Pendowski
- Rick Roeder

Washington State Office of the Attorney General, Ecology Division:

- Steve Thiele

Washington State Department of Health:

- Jim White